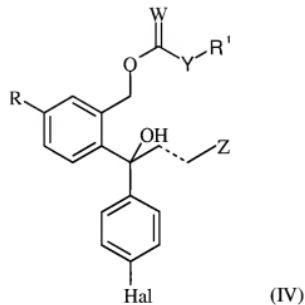


AMENDMENTS TO THE CLAIMS

Listing of Claims:

1. (Currently amended): A method for the isolation and purification of ~~the~~ a compound having [[a]] the formula



wherein R is cyano or a group which may be converted to a cyano group,

the dotted line represents a double or single bond,

Hal is halogen,

Z is a dimethylaminomethyl group or Z is a group which may be converted to a dimethylaminomethyl group,

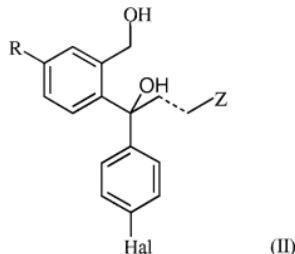
W is O or S,

Y is a bond, O, S or NH,

and R¹ is C₁₋₁₀-alkyl, C₂₋₁₀-alkenyl or C₂₋₁₀-alkynyl all of which may optionally be substituted with one or more substituents selected from C₁₋₁₀-alkoxy, C₁₋₁₀-alkylthio, hydroxy, halogen, amino, nitro, cyano, C₁₋₁₀-alkylamino, di-(C₁₋₁₀-alkyl)amino, aryl, aryloxy, arylthio and heteroaryl, or R¹ is aryl, wherein any of the ~~the~~ aryl and heteroaryl groups may optionally be substituted one or more times with substituents selected from C₁₋₁₀-alkyl, C₂₋₁₀-alkenyl, C₂₋₁₀-alkynyl, C₁₋₁₀-alkoxy, C₁₋₁₀-

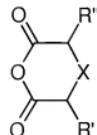
alkylthio, hydroxy, halogen, amino, nitro, cyano, C₁₋₁₀-alkylamino and di-(C₁₋₁₀-alkyl)amino, or a salt thereof,

and/or a diol of formula

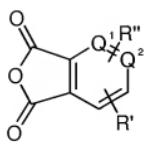


wherein R, Z, Hal and the dotted line are as defined above, or a salt thereof, from a mixture containing the compound of formula (IV) and the diol of formula (II), comprising which comprises:

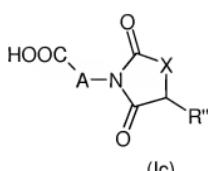
a) reacting said mixture containing the compound of formula (IV) and the diol of formula (II) with a cyclic anhydride or imide of formula



or



or



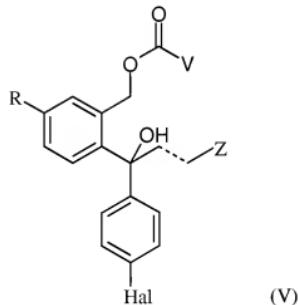
wherein X is -(CHR''')_n-, wherein n is 0-2;

and R' , R'' and R''' are independently selected from hydrogen, C_{1-6} -alkyl, C_{1-6} -alkoxy, aryloxy, C_{1-6} -acyloxy, and aryl-CO-O, wherein each aryl may be substituted with C_{1-6} -alkyl, or R' and R'' in an anhydride of formula (Ia) together are $-O-CR^4R^5-O-$, wherein R^4 and R^5 are independently hydrogen or C_{1-6} -alkyl, or R' and R'' in an anhydride of formula (Ib) are adjacent and together with the two carbon atoms to which they are attached form a benzene ring;

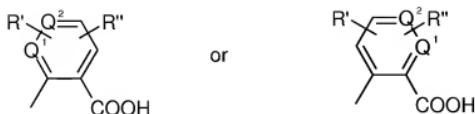
one of Q^1 and Q^2 is nitrogen and the other is carbon, or both are carbon;

A is C_{1-6} -alkylene, phenylene, or naphthylene wherein the C_{1-6} -alkylene, phenylene, or naphthylene groups may optionally be substituted one or more times with C_{1-6} -alkyl;

to form a mixture of the compound of formula (IV) and an ester having the formula



wherein R , Z and Hal are as defined above and V is $-CHR'-X-CR''-COOH$, $-X-CHR''-CO-NH-A-COOH$, $-CHR''-X-CO-NH-A-COOH$,



wherein R', R'', X, and A are as defined above;

b) separating the compound of formula (IV) from the ester of formula (V) by a method selected from the group consisting of:

iv) i) allowing the acid of formula (V) or a salt thereof to precipitate from the reaction mixture, and separating the precipitate of the compound of formula (V) or a salt thereof from the reaction mixture, optionally followed by isolation of the compound of formula (IV) or a salt thereof from the reaction mixture;

v) ii) partitioning between an organic solvent and an aqueous solvent whereby the compound of formula (IV) will be dissolved in the organic phase whereas the compound of formula (V) will be dissolved in the aqueous phase, separating the phases, and optionally isolating the compound of formula (IV) or a salt thereof and/or isolating the compound of formula (V) or a salt thereof; and

vi) iii) adsorbing the compound of formula (V) on a basic resin, separating the solvent containing the compound of formula (IV) from the resin, desorbing the compound of formula (V) from the basic resin, and optionally isolating the compound of formula (IV) or a salt thereof and/or isolating the compound of formula (V) or a salt thereof.

2. (Currently amended): The method according to claim 1, wherein the separation of the compound of formula (IV) from the ester of formula (V) is performed by allowing the acid of

formula (V) or a salt thereof to precipitate from the reaction mixture, and separating the precipitate of the compound of formula (V) of a salt thereof from the reaction mixture, optionally followed by isolation of the compound of formula (IV) or a salt thereof from the reaction mixture.

3. (Currently amended): The method according to claim 1, any of claims 1 or 2 wherein R', R'', and R''' are independently selected from hydrogen and C₁₋₆-alkyl, and Q¹ and Q² are both carbon.

4. (Currently amended): The method according to claim 1, any of claims 1-3 wherein the S-enantiomer of the compound of formula (V) or a mixture of enantiomers of the compound of formula (V) comprising more than 50% of the S-enantiomer of the compound of formula (V) is separated from the R-enantiomer of the acyl derivative of formula (IV) or from a mixture of enantiomers of the acyl derivative of formula (IV) comprising more than 50% of the R-enantiomer of the acyl derivative of formula (IV).

5. (Original): The method according to claim 4 wherein the S-enantiomer of the compound of formula (V) is separated from the R-enantiomer of the acyl derivative of formula (IV) or from a mixture of enantiomers of the acyl derivative of formula (IV) comprising more than 50% of the R-enantiomer of the acyl derivative of formula (IV).

6. (Original): The method according to claim 5 wherein the S-enantiomer of the compound of formula (V) is separated from the R-enantiomer of the acyl derivative of formula (IV).

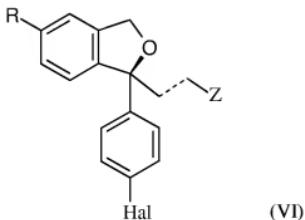
7. (Currently amended): The method according to claim 1, any of claims 1-3 wherein the S-enantiomer of the acyl derivative of formula (IV) or a mixture of enantiomers of the acyl derivative of formula (IV) comprising more than 50% of the S-enantiomer of the acyl derivative of formula (IV) is separated from the R-enantiomer of the compound of formula (V) or from a mixture of

enantiomers of the compound of formula (V) comprising more than 50% of the R-enantiomer of the compound of formula (V).

8. (Original): The method according to claim 7 wherein the S-enantiomer of the acyl derivative of formula (IV) is separated from the R-enantiomer of the compound of formula (V) or from a mixture of enantiomers of the compound of formula (V) comprising more than 50% of the R-enantiomer of the compound of formula (V).

9. (Original): The method according to claim 8 wherein the S-enantiomer of the acyl derivative of formula (IV) is separated from the R-enantiomer of the compound of formula (V).

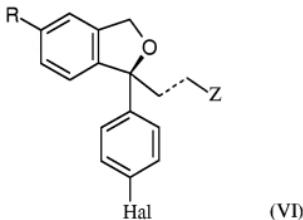
10. (Currently amended): The method according to claim 4, any of claims 4-6 wherein ~~the R group in the compound of formula (V) is obtained in the form of the S-enantiomer, and wherein R is~~ optionally converted to cyano, ~~the Z group in the compound of formula V obtained is~~ optionally converted to a dimethylaminomethyl group, Hal is optionally converted to fluoro, and/or a dotted line representing a double bond is optionally converted to a single bond, in any either order, followed by conversion of the compound of formula (V) to escitalopram or a derivative thereof having the formula



wherein R, Z and Hal are as defined above, by treatment with a base, optionally followed by, in any either order, conversion of ~~the group R to a cyano group, conversion of the group Z to a~~

dimethylaminomethyl group, conversion of Hal to fluoro, and conversion of a dotted line representing a double bond to a single bond; optionally followed by conversion of escitalopram or a derivative of formula (VI) to a salt thereof.

11. (Currently amended): The method according to claim 7, any of claims 7-9 wherein the R group in the compound of formula (IV) ~~the is~~ obtained in the form of the S-enantiomer, and wherein R is optionally converted to cyano, ~~the Z group in the compound of formula IV obtained~~ is optionally converted to a dimethylaminomethyl group, Hal is optionally converted to fluoro and/or a dotted line representing a double bond is optionally converted to a single bond, in any either order, followed by conversion of the compound of formula (IV) to escitalopram or a derivative thereof having the formula



wherein R, Z and Hal are as defined above, by treatment with a base, optionally followed by, in any either order, conversion of the group R to a cyano group, conversion of the group Z to a dimethylaminomethyl group, conversion of Hal to fluoro, and conversion of a dotted line representing a double bond to a single bond; optionally followed by conversion of escitalopram or a derivative of formula (VI) to a salt thereof.

12. (Currently amended): The method according to claim 10, any of claims 10 or 11 wherein the basic ring closure is carried out by treatment with a base such as $\text{KOC}(\text{CH}_3)_3$ or other alkoxides, NaH or other hydrides, or amines such as triethylamine, ethyldiisopropylamine or pyridine.

13. (Currently amended): The method according to claim 1, any of claims 1-12 wherein Hal is fluoro and R is halogen or cyano, preferably R is cyano.

14. (Currently amended): The method according to claim 1, any of claims 1-13 wherein the dotted line represents a single bond.

15. (Currently amended): The method according to claim 1, any of claims 1-14 wherein and Z is a dimethylaminomethyl group or a group that may be converted to a dimethylaminomethyl group, preferably Z is a dimethylaminomethyl group.

16. (Currently amended): The method according to claim 1, claims 1-15 wherein the cyclic anhydride is a compound of formula (Ia).

17. (Currently amended): The method according to claim 16, wherein the cyclic anhydride is succinic anhydride or glutaric anhydride.

18. (Currently amended): The method according to claim 1, claims 1-17 wherein the cyclic anhydride is a compound of formula (Ib).

19. (Currently amended): The method according to claim 18, wherein the cyclic anhydride is phthalic acid anhydride.

20. (Currently amended): The method according to claim 1, claims 1-15 wherein the reagent is an imide is a compound of [IF] formula (Ic).

21. (Original): The method according to claim 20 wherein the imide is N-phenylsuccinimide substituted in the phenyl ring with a carboxy group.

22. (Currently amended): The method according to claim 1, any of claims 1-21 wherein Y in the compound of formula (IV) is a bond.

23. (Currently amended): The method according to claim 1, any of claims 1-21 wherein Y in the compound of formula (IV) is O or S.

24. (Original): The method according to claim 23 wherein Y in the compound of formula (IV) is O.

25. (Currently amended): The method according to claim 1, any of claims 1-21 wherein Y in the compound of formula (IV) is NH.

26. (Currently amended): The method according to claim 1, any of claims 22-25 wherein R¹ is selected from C₁₋₄-alkyl, C₂₋₄-alkenyl and C₂₋₄-alkynyl all of which may optionally be substituted one or more times with substituents selected from C₁₋₄-alkoxy, C₁₋₄-alkylthio, hydroxy, halogen, amino, nitro, cyano, C₁₋₄-alkylamino and di-(C₁₋₄-alkyl)amino.

27. (Original): The method according to claim 26 wherein R¹ is selected from C₁₋₃-alkyl, C₂₋₃-alkenyl and C₂₋₃-alkynyl all of which may optionally be substituted one or more times with substituents selected from C₁₋₃-alkoxy, C₁₋₃-alkylthio, hydroxy, halogen, amino, nitro, cyano, C₁₋₃-alkylamino and di-(C₁₋₃-alkyl)amino.

28. (Original): The method according to claim 26 wherein R¹ is C₁₋₄-alkyl.

29. (Original): The method according to claim 27 wherein R¹ is C₁₋₃-alkyl.

30. (Currently amended): The method of claim 29, wherein R¹ is methyl, ethyl, or propyl, preferably propyl.

31. (Currently amended): The method according to claim 1, any of claims 1-30 wherein the mixture of a the compound of formula (II)-and (IV) and the diol of formula (II) is prepared by selective enzymatic acylation or selective enzymatic deacylation.

32. (Currently amended): A method for the manufacture of escitalopram, comprising the method of claim 1 any of claims 1-31.

33. (New): The method according to claim 12, wherein the base is selected from alkoxides, hydrides, or amines.

34. (New): The method according to claim 33, wherein the base is selected from KOC(CH₃)₃, NaH, triethylamine, ethyldiisopropylamine, and pyridine.

35. (New): The method according to claim 11, wherein the basic ring closure is carried out by treatment with a base.

36. (New): The method according to claim 35, wherein the base is selected from alkoxides, hydrides, or amines.

37. (New): The method according to claim 36, wherein the base is selected from KOC(CH₃)₃, NaH, triethylamine, ethyldiisopropylamine, and pyridine.

38. (New): The method according to claim 13, wherein R is cyano.

39. (New): The method according to claim 15, wherein Z is a dimethylaminomethyl group.

40. (New): The method according to claim 30, wherein R¹ is propyl.